

Effect of an 8-Week Yoga Intervention on Perceived Stress Among Professionals: An Experimental Study

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Abstract

The current study explores the effectiveness of yoga in reducing perceived stress among working professionals. An 8-week intervention was administered to two groups: a yoga intervention group and a control group, each with 30 participants. The Perceived Stress Scale (PSS-10) was used to assess stress levels before and after the intervention. Results demonstrated a significant reduction in perceived stress levels in the yoga group ($p < .001$) compared to the control group ($p = .03$). These findings support the implementation of yoga in professional settings as a cost-effective and accessible stress management strategy.

Keywords: Yoga, perceived stress, professionals, PSS-10, mental health, occupational stress

Introduction:

Work-related stress has emerged as a major health concern among professionals in the 21st century, contributing to a variety of psychological and physiological health disorders (American Psychological Association, 2022). Constant deadlines, competitive environments, and technological disruptions have significantly impacted work-life balance and mental well-being.

Yoga, an ancient Indian practice rooted in physical, mental, and spiritual discipline, has gained global recognition for its health benefits, including stress management (Sengupta, 2012). The integration of asanas (physical postures), pranayama (breath control), and meditation creates a holistic system that targets both the body and mind. Numerous studies have affirmed the role of yoga in reducing anxiety, depression, and perceived stress (Sharma, 2014).

This study aims to evaluate the effectiveness of a structured 8-week yoga program in reducing perceived stress among professionals in urban India. The hypothesis was that participants in the yoga group would show a greater reduction in stress scores post-intervention compared to the control group.

Review of Literature:

Cohen et al. (1983) developed the Perceived Stress Scale (PSS) to measure the extent to which situations in one's life are appraised as stressful. It has since become a widely used tool in both clinical and organizational psychology.

Research by Streeter et al. (2012) demonstrated that yoga practice is associated with increased gamma-aminobutyric acid (GABA) levels, which are linked to decreased anxiety and improved mood.

Similarly, a study by Hartsfield et al. (2011) showed significant improvements in mood and perceived stress among workplace yoga practitioners.

In the Indian context, Srivastava & Singh (1984) validated the Occupational Stress Index for professionals. More recently, Pradhan & Nagendra (2020) emphasized yoga's application in Indian corporate settings as a way to handle emotional exhaustion and role overload.

Despite growing evidence, limited experimental studies exist in Indian settings focusing exclusively on professionals. This study aims to fill that gap.

Methodology

Participants

Sixty professionals aged 25 to 50 years (mean age = 36.4), working in educational institutions, offices, and legal services in Bhagalpur (Bihar), were randomly assigned into two groups: the Yoga Group (n = 30) and the Control Group (n = 30). Participants reported moderate to high levels of perceived stress at baseline.

Research Design

This was a pre-post experimental design with a control group. Both groups were assessed before and after the 8-week period.

Tool Used

Perceived Stress Scale (PSS-10): Developed by Cohen et al. (1983), this 10-item scale measures the degree to which situations in life are perceived as stressful. Responses are recorded on a 5-point Likert scale. Scores range from 0 to 40, with higher scores indicating greater perceived stress.

Procedure

The Yoga Group underwent a structured 8-week yoga intervention consisting of:

20 minutes of asanas (Hatha Yoga-based)

15 minutes of pranayama

15 minutes of guided meditation

Sessions were held 5 days per week under trained supervision.

The Control Group received no intervention and continued their routine lifestyle.

Results :

Descriptive Statistics : Group Pre-Intervention Mean Post-Intervention Mean Mean Reduction

Yoga Group 68.12 53.72 14.39

Control Group 70.13 68.23 1.90

Statistical Analysis

Yoga Group:

$t(29) = 16.93, p < .001$

Significant stress reduction observed

Control Group:

$t(29) = 2.29, p = .03$

Marginal reduction observed, not clinically significant

Graphical Representation

Figure 1: Comparison of mean stress reduction in Yoga and Control groups

Discussion

The results strongly support the hypothesis that yoga significantly reduces perceived stress levels among professionals. The large effect size in the yoga group aligns with previous literature (Sengupta, 2012; Sharma, 2014). The control group showed a statistically significant but negligible reduction, possibly due to time-related or environmental factors.

These findings reinforce the potential of yoga as a non-pharmacological, cost-effective intervention for enhancing mental health in professional environments. The integration of breath control, physical postures, and meditation likely contributed to reduced physiological arousal and improved emotional regulation.

Implications

Workplace Wellness: Incorporating yoga in organizational settings can help reduce stress and improve productivity.

Policy Recommendation: HR departments and government bodies may promote yoga-based mental health programs in both public and private sectors.

Psychological Counselling: Yoga can complement psychological therapies as part of holistic mental health care.

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Limitations:

Small sample size limits generalizability

Self-report measures are susceptible to bias

Only short-term effects were studied

Conclusion:

This study provides robust evidence that an 8-week structured yoga intervention significantly reduces perceived stress among professionals. It opens avenues for large-scale implementation of yoga in professional and institutional settings as a preventive mental health strategy.

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